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JET-SET/2
AN INTERCITY PASSENGER TRANSPORTATION SIMULATION GAME
User's Manual

by
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ABSTRACT

JET-SET/2 is the second version of a micro-computerized simulation game which deals with different intercity passenger transportation companies in a competitive environment, whether it be regulated or not. It is designed for the training of planners and managers as well as for the analysis and experimentation of situations similar to those encountered in practice in this sector of the transportation industry.

This document presents the operating procedures for using JET-SET/2 on the IBM personal computers and compatibles. It is mainly addressed to the game master, i.e. the operator responsible for the running of the simulation session. This document will also be of use to the participants in charge of the transportation companies involved in the simulation when the game master entrusts them will some part of the operator's task.

Keywords: JET-SET/2; user's manual; personal computers.

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RÉSUMÉ

JET-SET/2 est la seconde version d'un logiciel de simulation d'entreprises de transport interurbain de passagers en concurrence les unes avec les autres, dans un environnement réglementé ou déréglementé. Conçu sous la forme d'un "jeu de simulation" sur micro-ordinateur, il est destiné à la formation de planificateurs-gestionnaires ainsi qu'à l'analyse et à l'expérimentation de situations comparables à celles rencontrées en pratique dans ce domaine.

Ce document décrit les procédures d'utilisation du logiciel JET-SET/2 sur les micro-ordinateurs IBM et compatibles. Il s'adresse essentiellement au maître de simulation. Ce document sera également nécessaire aux participants responsables des compagnies de transport impliquées dans la simulation si le maître de simulation leur confie une partie du travail d'opérateur.

Mots-clés: JET-SET/2; manuel d'utilisation; micro-ordinateurs.

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1. INTRODUCTION

JET-SET/2 is the second version of a simulation game dealing with intercity passenger transportation companies competing in a regulated or deregulated environment. It is designed for the training of planners and managers, as well as for the analysis and experimentation of situations comparable to those encountered in practice in the field.

This document describes the operating procedures for running the various programs of JET-SET/2 on IBM personal computers and true compatibles under DOS.

An accompanying document describes in detail the operating rules of the simulations which can be executed with JET-SET/2 : game situations, roles of participants and game master, running of a simulation session, etc. READING OF THAT ACCOMPANYING DOCUMENT MUST PRECEDE THE ONE PRESENTED HERE.

This User's Manual is organized according to the major stages that characterize each period (year) of a simulation session : the input of the game master's and participants' decisions, the simulation itself, the production of the master's and participants' reports and, at the very beginning of the session, the initialization phase (which itself includes a session creation stage, along with the simulation and report production stages for year 0).

Normally, the game master is the operator : he is the one who ensures that the different stages mentionned above are realized on the micro-computer. Nevertheless, if he finds it advisable, the game master may ask the participants to enter their decisions themselves on the micro-computer and/or to carry out their respective report production; only the session creation and simulation stages are restricted to the game master. Hence, part of this manual is intended for the participants since they may be led to assume part of the operator's work.

Section 2 specifies the hardware necessary to utilize the JET-SET/2 software. Section 3 outlines the main stages of a simulation session. Sections 4 to 6 describe in detail the use of the software's programs corresponding to these different stages : section 4 presents the game master's operations, including the input of the participants' decisions and the production of their reports if he takes charge of these operations; section 5 deals with the programs to be used by the participants when, on the contrary, the game master entrusts them with the input of their decisions and/or the production of their reports[1]; the last section describes the procedure to input the decisions.

Normally, the game master should read the entire manual. As for the participants, they have to refer to sections 5 and 6; of course, if the game master does not give them any task on the computer, it is useless for them to read any part of this manual.

JET-SET/2 is entirely user-friendly: it is easily used by anybody who is not familiar with computers. Only three difficulties may occur, and they are identified in appendix A with the appropriate solutions.

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(1) There is a certain redundancy between sections 4 and 5; this is intentional in order to isolate in different sections the work executed by the game master and the participants.

2. HARDWARE REQUIREMENTS

Using JET-SET/2 requires an IBM PC/XT/AT (true compatibles included) or an IBM PS/2, with the following minimal configuration:

- 512K RAM memory
- a hard disk with one diskette drive
  or
  2 diskette drives
- an EPSON FX/MX series printer[1]
- the DOS (PC or MS) operating system, version 3.0 or higher.

Note: The main directory from which DOS is booted has to contain a CONFIG.SYS file. This file must include the command "FILES = x" where x is equal to or greater than 16. (Consult the DOS reference manual if needed).

The JET-SET/2 software consists of three diskettes containing the following programs that correspond to the different stages of a simulation session:

- INITIALIZATION AND INPUT
- SIMULATION
- OUTPUT.

These three SOFTWARE DISKETTES are supplied with a "hardware protection key" that prevents the use of the software or any copy when the micro-computer is not equiped with this key. Different keys are supplied when copies are needed to run on several computers.

The protection key has to be attached to the parallel printer port of the computer. If a printer cable is already connected to the parallel port, you must (a) disconnect the cable,

[1] Other printers are supported, in particular those emulating the IBM mode.

(b) attach the key to the parallel port, and (c) connect the printer cable to the free end of the key. To prevent any problem, it is recommended to keep the printer on and without any error condition (paper out, etc.). When using multiple security devices, make sure that the supplied key is directly connected to the parallel port. The other devices may be attached to the key.

The key has to be there both at the creation of a simulation session and during any execution of the simulation program. All other operations may be realized without the key being present.

Remarks

a) Since many persons intervene in a simulation session, it may be interesting to utilize JET-SET/2 on a micro-computer network. Each micro-computer may then be assigned to each individual (or team) taking part in the simulation. Appendix B gives some details on this subject.

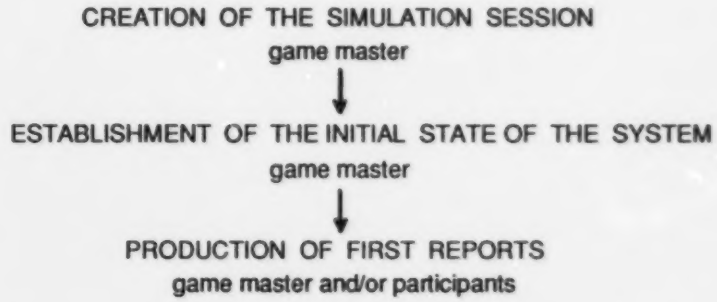
b) Before using the software for the first time, it is recommended that you make a copy of all three diskettes. Keep the originals in a safe place where they cannot be damaged.

3. REALIZATION OF A SIMULATION SESSION

The realization of a simulation session is composed of an **initialization phase** followed by a certain number of **simulation periods**. This section presents an overview of operations.

3.1 SESSION INITIALIZATION

The initialization phase of a simulation session is intended to create the starting situation. This includes, in order, the following steps. (We have indicated the person(s) in charge of each step).


CREATION OF THE SIMULATION SESSION
game master
ESTABLISHMENT OF THE INITIAL STATE OF THE SYSTEM
game master
PRODUCTION OF FIRST REPORTS
game master and/or participants

3.1.1 Creation of the simulation session

With the help of the initialization program, the game master has to create the simulation session. Some informations must then be given: name of the session, intervening companies, participants' names, etc. This operation is described in detail in section 4.3.

3.1.2 Establishment of the initial state of the system

In this second step, the game master proceeds to the first execution of the simulation program for the newly created session. This operation corresponds in fact to the simulation of year 0; it determines the initial state of the transport system and of the different companies, i.e. their state at the end of year 0 (coinciding obviously with the start of year 1). Section 4.5 describes how to carry out this first simulation.

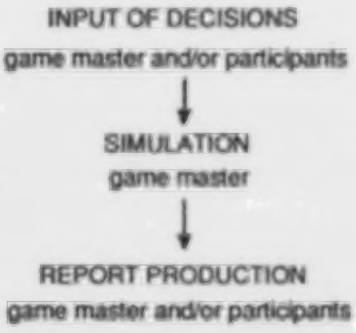
3.1.3 Production of first reports

In this third step, the game master utilizes the report production program to output his report for year 0, as well as the corresponding reports for each and every company if he decides to take charge of the whole operation. The reports are then handed over to the different participants. Each participant may also produce his own report by utilizing the same program. The procedure for report production by the master is described in section 4.6. The report production procedure by a participant is described in section 5.3.

3.2 SIMULATION PERIODS

After the initialization phase, everything is set for the first simulation period to start. The system is now at the beginning of the starting year (year 1).

The first simulation period, and each subsequent period, begins with decision making: on the basis of the information contained in their respective reports, the participants and the game master take their decisions by completing the sections designed to this effect at the end of the reports. Each simulation period then contains three stages are shown below. (We have indicated the person(s) in charge of each stage).



3.2.1 Input of decisions

The input of the game master's and participants' decisions is done with the help of an on-screen question-answer dialog, by using the input program designed for this purpose. The master may take charge of the whole operation, after asking all participants to give him their lists of decisions; the procedure to follow is described in section 4.4. Each participant may also enter his decisions himself by utilizing the same program; the corresponding procedure is described in section 5.2.

3.2.2 Simulation

Once the decision input stage is completed, the game master executes the simulation program by following the procedure described in section 4.5. At the end of the simulation, the calendar has leaped one year forward.

3.2.3 Report production

Following the execution of the simulation program, the participants' and master's reports can be produced by utilizing the output program provided. To produce his report and, possibly, the participants' reports, the game master follows the procedure described in section 4.6. The participants producing their reports themselves have to refer to section 5.3. When the report production is finished, you can go on to the next simulation period by proceeding with a new decision-making process, and so on.

4. GAME MASTER'S MANUAL

4.1 CHOOSING THE PHYSICAL SUPPORT

Any simulation session generates data files that evolve as the simulation periods progress. These files can be stored on diskettes or hard disk, but the three software diskettes take for granted that it will be the first support (diskettes) that will be used to store the files in question. By definition, we then say that the system is ready to function in **DISKETTE MODE**. Two scenarios are in fact possible[1]:

a) Game situation no. 1 or 2: Only one extra diskette - called SESSION DISKETTE - has to be utilized for the whole session, for both the master and all participants.

b) Game situation no. 3: One SESSION DISKETTE is required for each person involved in the simulation, i.e. one for the game master, one for participant X, one for participant Y, etc.

As mentioned above, utilization of a hard disk as the physical support is also possible (and in fact is recommended since this reduces the execution time and the time lost in handling the diskettes). The storage of data files on a hard disk requires however that the access paths of the software be modified; we then say that the system is ready to operate in **HARD DISK MODE**. Section 4.8.2 describes the operations to apply to the three software diskettes to go from diskette mode to hard disk mode, and vice-versa if a return to diskette mode is required[2].

Besides, and regardless of the physical support chosen for the data files, it is also possible to install the whole software on hard disk. Thus, at this level too, savings in the

(1) The different "game situations" (no. 1, 2 or 3) are defined in the "Operating rules" manual.

(2) This means that if a simulation session is stored on a diskette and is temporarily interrupted, it will be possible to resume the session only if the software is in diskette mode. Inversely, if the session is stored on hard disk, it will be possible to resume only if the software is in hard disk mode.

execution time and the time lost in handling the diskettes are possible. HOWEVER, THIS MANUAL HAS BEEN WRITTEN ON THE ASSUMPTION THAT THE SOFTWARE WILL BE KEPT AND UTILIZED ON 3 DISKETTES. THE NECESSARY STEPS TO INSTALL AND UTILIZE THE SOFTWARE ON A HARD DISK ARE DESCRIBED IN SECTION 4.8.3.

If the game master decides that the participants will handle the input of their decisions and/or the output of their reports, he will have to:

a) Let the participants know if the system is in diskette mode (data files on diskettes) or in hard disk mode (files on hard disk). If the system is in diskette mode, he will obviously have to give them the session diskette(s) before each input or output operation.

b) Let the participants know if he has installed the software on hard disk; if so, he will then have to explain to the participants the changes in procedure since this manual has been written on the assumption that the software is on 3 diskettes. Of course, if the software is not transferred on a hard disk, the game master will have to give the appropriate software diskette to the participants before each input or output operation.

c) Let each participant know the name of the simulation session and the name under which he is identified in the system.

Remarks

1) If the computer has a hard disk but only one diskette drive, the hard disk has to be used, either to store the data files, or to store the software. Of course, everything can be installed on the hard disk.

2) The session diskettes have to be formatted before being utilized. A user not familiar with the formatting procedure must refer to the DOS reference manual.

4.2 WARNING CONCERNING GAME SITUATION NO. 3

As indicated in the previous section, any simulation session relative to situation no 3 requires the use of several session diskettes if the session data files are not stored on hard disk. Numerous diskette manipulations are then necessary.

TO AVOID OBSCURING THE TEXT BY SPECIFYING THESE MANIPULATIONS, SECTIONS 4.3 TO 4.6 TAKE FOR GRANTED THAT THE USER HAS CHOSEN TO DEAL WITH SITUATION NO. 1 OR NO. 2, WITH THE SYSTEM IN DISKETTE MODE OR HARD DISK MODE (FILES ON DISKETTE OR HARD DISK), OR WITH SITUATION NO. 3, WITH THE SYSTEM IN HARD DISK MODE.

THE CASE OF SITUATION NO. 3 WITH THE SYSTEM IN DISKETTE MODE (FILES ON DISKETTES) IS HANDLED IN SECTION 4.7. We indicate there the required changes to the operations for the utilization of several session diskettes.

4.3 CREATION OF A SIMULATION SESSION

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A. If the system is in diskette mode (see sections 4.1 and 4.2), insert the session diskette in drive B.
2) Type `A:JET-SET`
3) The main menu is displayed:

   1. **Creation of a new session.**
   2. **Input of decisions.**
   3. **End.**

   Select option 1.

4) The program then asks you to specify the following items:

   - Password

- Name of the new session
- Your name.

  You must enter the name under which you want to be identified as the game master during this session.
- Choice of game situation

  You have to choose between three game situations: "situation 1", "situation 2" or "situation 3". Note that many simulation sessions relative to situations 1 and 2 may exist simultaneously. On the other hand, there may be only one "situation 3" type session at any point in time. Creating a new one will make the old one unusable. This is why, if you choose "situation 3", the program asks you to confirm that you really want to create this session.
- Identification of companies and participants.

  You have to identify all the companies and participants that will be present in the simulation. Any company normally present can be eliminated. If you decide to keep it and if there is no participant to manage it (either because there are not enough participants, or because this company is never managed by a participant - that depends on the game situation considered), the company concerned will stay fixed during the whole simulation. The name given to each participant will in fact serve as his password if he has to enter his decisions and/or produces his reports himself.

5) Summary: companies involved and participants. A summary of the specifications that you have given in the previous step is shown to you. You indicate if you want to make changes or not. An affirmative answer brings you back to the previous screen.
6) The program asks you to specify the following other items:

   - Choice between a regulated or deregulated situation.

- Actualization of financial data.

  The financial data in this software is given in 1990 dollars. You can index this data if you want to work with dollars of another year.

- Consulting/modifying the regular operating costs. For each company, as well as for the automobile, you have the possibility to modify the proposed regular operating costs (unit costs). As soon as a modification is made, the corresponding total unit cost is automatically adjusted. If you enter "?" as a value, the system will display the cost initially proposed to you (default value).

7) The software then actually proceeds to the creation of the session, according to the instructions you have given. When this operation is completed, the main menu is displayed again; you then have to quit the program (option 3) in order to proceed - as indicated in sections 3.1.2 and 3.1.3 - to the first execution of the simulation program, and then of the report production program (output program).

4.4 INPUT OF DECISIONS

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A. If the system is in diskette mode (see sections 4.1 and 4.2), insert the session diskette in drive B.

2) Type `A:JET-SET`

3) The main menu is displayed:

   1. **Creation of a new session.**
   2. **Input of decisions.**
   3. **End.**

   Select option 2.

4) The program then asks you to specify the following items :

   - Name of the session.

- Your name.
- Password.

5) A sub-menu is proposed:

   1. **Input of the master's decisions.**
   2. **Input of a participant's decisions.**
   3. **End.**

   By choosing option 1, you are actually going to the step where you input your decisions. Option 2 first displays a numbered list of participants; you have to give the number of the participant for whom you want to enter the decisions, and then proceed to the input of the decisions of this participant. Warning: YOUR OWN DECISIONS MUST ALWAYS BE ENTERED BEFORE THE DECISIONS OF THE PARTICIPANTS (even if they enter their decisions themselves).
   The decision input process itself is described in detail in section 6.

6) When the input of decisions is completed, the program brings you back to the sub-menu. Option 3 of this menu brings you back to the main menu.

Remark

The game master can modify his decisions as long as no participant decisions have been entered. As well, the participants' decisions can be modified several times provided that the master's decisions have already been entered.

4.5 SIMULATION

PROCEDURE TO FOLLOW FOR GAME SITUATIONS NO. 1 OR 2.

1) Insert the "SIMULATION" diskette in drive A. If the system is in diskette mode (see sections 4.1 and 4.2), insert the session diskette in drive B.

2) Type `A:JET-SET`

3) The program asks you to specify the following items:

   - Password.
   - Name of session.

4) Then, the message *"Execution in progress"* indicates that the simulation is in operation.

5) The execution of the simulation ends when the message *"Simulation completed"* is displayed. You then press any key.

PROCEDURE TO FOLLOW FOR GAME SITUATION NO. 3.

In this situation, the participants operate in "parallel" contexts: a different state of the transportation network corresponds to each participant. Hence, you have to execute the simulation as many times as there are participants.

1) Insert the "SIMULATION" diskette in drive A. If the system is in diskette mode (see sections 4.1 and 4.2), insert the session diskette in drive B.

2) Type `A:JET-SET`

3) The program asks you to specify the following items:

   - Password.
   - Name of session.

4) The program asks you to identify the participant for whom you want to execute the simulation.

5) Then, the message *"Execution in progress"* indicates that the simulation is in operation.

6) The execution of the simulation ends when the message *"Simulation completed"* is displayed. Press any key to continue.

7) The program asks if you wish to undertake the simulation for another participant. In the affirmative, you are brought back to step 4. A negative answer takes you out of the program.

4.6 REPORT PRODUCTION

1) Insert the "OUTPUT" diskette in drive A. If the system is in diskette mode (see sections 4.1 and 4.2), insert the session diskette in drive B.

2) Type `A:JET-SET`

3) The program asks you to specify the following items:

   - Name of session.
   - Your name.
   - Password.

4) In a game situation no. 1 or 2, the following menu is displayed:

   1. **Output of a participant's report.**
   2. **Output of master's report.**
   3. **Output of master's and all participants' reports.**
   4. **End.**

   You specify the desired option. If you choose option 1, a numbered list of participants is displayed; you then give the number of the participant for whom you want the report to be produced.

   In a game situation no. 3, the following menu is displayed:

   1. **Output of a participant's report.**
   2. **Output of the master's report.**
   3. **End.**

Option 1 presents a numbered list of participants; you then specify the participant's number for whom you want the report to be produced.

Option 2 enables you to produce your own report, but remember that, IN SITUATION GAME NO. 3, ALL THE PARTICIPANT REPORTS MUST BE PRODUCED BEFORE YOURS. If you forget this, a list of the participants whose reports have not been produced yet is communicated to you, with the following message :

"You must produce the reports of these participants before yours,
otherwise these participants will be eliminated.
Do you still want to produce your report?"

An affirmative answer leads to the elimination of the participants concerned. Then the program permits you to complete the production of your report. A negative answer brings you back to the menu.

5) The program asks you to indicate if you want to obtain:
   - the report on file or on printer;
   - the graphic networks or not. (Production of these networks is always done on the printer, even if you have chosen the file option for the report.)

6) Once the report production is completed, the program brings you back to the menu; you then may quit the program or produce other reports.

When the program ends, and if you have asked to obtain some reports on file, the list of file names where the reports are located is displayed. (You will find these files where the other data files of the simulation session are).

4.7 GAME SITUATION NO. 3 WITH THE SYSTEM IN DISKETTE MODE

When the game master has chosen a game situation no. 3 with the system in diskette mode (see section 4.1), several session diskettes are required to store the data files: one for the game master, one for participant X, one for participant Y, etc. In this case, the procedures described in sections 4.3 to 4.6 have to be slightly adjusted.

4.7.1 Creation of a simulation session

You follow the procedure described in section 4.3 with one of the session diskettes in drive B. The program then indicates the name of the participant corresponding to this diskette, and after that, it asks you to insert one by one the other session diskettes, each time indicating the corresponding participant's name; the last diskette you have to insert will be yours. Obviously, at each time, you have to label the diskette with the name of the corresponding person.

4.7.2 Input of decisions

You first follow the procedure described in section 4.4 and you input your decisions, with your session diskette in drive B. When the program brings you back to the sub-menu, you then may proceed to the input of the decisions of each participant by replacing at each time the diskette in drive B with this participant's diskette. Obviously, you can also give each participant his session diskette and entrust him with the input of his decisions (see section 5.2).

4.7.3 Simulation

You follow the procedure described in section 4.5 while having a participant's session diskette in drive B. At the end of this first simulation, as well as at the end of the simulation for each of the other participants, the program asks you to replace the diskette

currently in drive B by yours; then, each time the program asks you if you want to do the simulation for another participant and you answer yes, you have to replace your diskette (which is in drive B) by the diskette of this other participant before specifying his name.

4.7.4 Report production

You follow the procedure described in section 4.6 with a participant's session diskette in drive B in order to produce his report. When the program brings you back to the menu, you proceed to the production of the reports of the other participants, then of your own report, replacing at each time the diskette in drive B by the one corresponding to the person for whom you want to produce the report. Of course, you may also give each participant his session diskette and entrust him with the production of his report (see section 5.3). All the partcipants' reports must always be produced before yours, otherwise there will be elimination of participants (see section 4.6).

4.8 UTILITIES

4.8.1 Changing the password

Any action taken by the game master requires the password originally given with the JET-SET/2 software. This password can be modified as often as needed by following the procedure described hereafter:

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A.
2) Type `A:CH-MOTP`
3) The program asks you to specify the following items:
   - The old password.
   - The new password.
   - And again the new password (for security reasons).

4) The program modifies the password on the diskette in drive A. It then asks you to replace this diskette by the "SIMULATION" diskette, and then by the "OUTPUT" diskette to proceed to the password modification on those two other software diskettes.

Now, any prompt for the password will require the new password you have just assigned. DO NOT FORGET IT...

4.8.2 Identification/modification of the physical support for data files

This section specifies the procedure to follow in order to identify and possibly modify the physical support for the data files. This procedure will permit you to switch from DISKETTE MODE to HARD DISK MODE and vice versa (see section 4.1). It may also be used to go to another disk unit and/or another directory while in hard disk mode.

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A.
2) Type `A:CH-MODE`
3) The program indicates the mode in which the software is currently operating, i.e. the type of physical support (diskette or hard disk) chosen for the data files. It also asks you if you want to change it.

   If you give a negative answer, the program ends. If you give an affirmative answer,

   - the program brings you to step 4 if the software is currently in hard disk mode (files on hard disk);
   - the program brings you to step 5 if the software is currently in diskette mode (files on diskette).

4) The program asks you if the data files have to be stored:

   1. on diskette
   2. on another disk unit and/or another directory.

By selecting option 1, you go to step 6. By selecting option 2, you go to step 5.

5) The program asks you to specify the disk unit and directory defining the new physical support for the data files.

6) The program makes the appropriate modifications in the diskette located in drive A. It then asks you to replace this diskette by the "SIMULATION" diskette, then by the "OUTPUT" diskette.

7) The message *"The modification of the physical support is completed"* indicates that the three software diskettes now contain the new definition of the physical support. You press any key and the program brings you back to step 3.

4.8.3 Installing the software on hard disk

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A.

2) Type `A:INSTALJS`

3) The program asks you to specify the unit and directory where you want to install the software. A unit and directory (`C:\JET-SET`) are suggested by default. Simply press "RETURN" if you want this default value; otherwise, enter the unit and directory of your choice.

4) The program copies the "INITIALIZATION AND INPUT" diskette from drive A to the hard disk. It then asks you to insert in drive A the "SIMULATION" diskette, followed by the "OUTPUT" diskette, in order to also proceed to their installation on the hard disk.

5) The program indicates the end of the procedure by displaying the message *"The software installation on the hard disk is completed"*.

During this installation, the program has created three sub-directories in the directory of the disk unit you have specified (in step 3): those three sub-directories, called INPUT, SIMULATION and OUTPUT, respectively contain the "INITIALIZATION AND INPUT" diskette, the "SIMULATION" diskette and the "OUTPUT" diskette.

Now, for each operation you want to undertake, you first have to access the sub-directory corresponding to the desired operation, and then type JET-SET. This procedure will replace steps 1 and 2 of sections 4.3 to 4.6, 4.8.1, 4.8.2 and sections 5.2 and 5.3 that follow. For example, if in step 3 above, you have chosen the unit and directory C:\XXXXX and you want to start the program for the input of decisions, you enter successively the following three commands:

```
C:
CD \XXXXX\INPUT
JET-SET
```

or the command `C:\XXXXX\INPUT\JET-SET`

Remark

The utility programs are located in the INPUT sub-directory.

5. PARTICIPANT'S MANUAL

This section is intended for the participants to whom the game master assigns the task of entering their decisions in the computer and/or producing their report. Before reading this section, participants should become acquainted with the operating rules of the simulations, either through a general presentation of those rules by the game master, or by reading the document that describes them in detail (in particular section 3).

5.1 PHYSICAL SUPPORT

Sections 5.2 and 5.3 which follow have been written on the assumption that THE SOFTWARE WILL BE USED IN DISKETTE MODE. It is nevertheless possible that the game master informs you that the software has been installed on hard disk. In this case, some minor changes in procedure are required.

Moreover, at the start of any simulation session, the game master has to tell you if the system is in DISKETTE MODE or in HARD DISK MODE, i.e. if the data files are going to be located on diskette or hard disk (the software being itself independently installed on diskette or hard disk).

Four cases are therefore possible:

(a) The software resides on diskettes and the system is in diskette mode. In this scenario, before each input of decisions or each report production, the game master has to give you the appropriate software diskette (labeled "INITIALIZATION AND INPUT" or "OUTPUT"), as well as a session diskette (for the data files).

(b) The software resides on diskettes and the system is in hard disk mode. This case is similar to the previous one, except that no session diskette is given to you.

(c) The software resides on hard disk and the system is in diskette mode. This case is similar to case (a), except that no software diskette is given to you, and the game master has to explain the changes in procedure to follow in order to utilize the software on hard disk.

(d) The software resides on hard disk and the system is in hard disk mode. No diskette is given to you, and the game master has to explain the changes in procedure to follow in order to utilize the software on hard disk.

5.2 INPUT OF DECISIONS

1) Insert the "INITIALIZATION AND INPUT" diskette in drive A. If the system is in diskette mode (see section 5.1), insert the session diskette in drive B.
2) Type `A:JET-SET`
3) The following menu is displayed:

   1. Creation of a new session.

   2. Input of decisions.

   3. End.

   Select option 2.
4) The program then asks you to specify the following items:

   - Name of the session.
   - Your name.

5) You may then go on to entering your decisions. The procedure to follow is described in detail in section 6.
6) When the input of decisions is completed, the program brings you back to the menu; you may then quit the program.

5.3 REPORT PRODUCTION

1) Insert the "OUTPUT" diskette in drive A. If the system is in diskette mode (see section 5.1), insert the session diskette in drive B.
2) Type `A:JET-SET`
3) The program asks you to specify the following items:

   - Name of session.
   - Your name.

   It then asks you to indicate if you want to obtain:

   - the report on file or on printer;
   - the graphic networks or not. (Production of these networks is always done on the printer, even if you have chosen the file option for the report).

4) Once the report production is completed, the program ends. If you have asked for your report on file, the name of the file where your report is located is displayed on screen. (You will find this file where the other data files of the simulation session are).

6. DECISION INPUT PROCESS

The input of decisions is carried out with the help of a question-answer dialog on the computer screen. Each page displayed is composed of a series of questions which are each followed by an answer-zone.

At the start, the cursor represented by the symbol ">" is placed in front of the answer-zone of the first question. After each valid answer, the cursor is moved in front of the answer-zone of the next question.

Each question proposes a default value as an answer. If this is to your convenience, press the "RETURN" key. You then go to the next question. If, on the contrary, you want to make another choice, enter the desired value and press "RETURN". If the validation system accepts your value, you go to the next question. If it rejects your value, a message explaining the reason of this rejection is displayed. You then press the space bar which erases the rejected answer. Next, you must supply a new value.

Note that as soon as a value is entered to replace the default value, this one is definitively lost.

In the case of the last question ("Have you finished?"), an affirmative answer brings you to the next page, except if you are at the last page; in this case, the program brings you back to the menu that was presented to you before the decision input process started. A negative answer to the last question of a page brings you back to the first question of that page. You can then loop as often as wanted.

APPENDIX A
POSSIBLE PROBLEMS AND SOLUTIONS

- A computer malfunction (or a power failure) happens during the input of decisions, the simulation or the report production.

  You only have to redo the operation. Unless the session diskette or the hard disk containing the session's data were altered by the malfunction, there should not be any problem.

- The message *"Wrong hardware key or no key attached to the parallel port"* is displayed during the creation of a session or the simulation.

  Make sure the security key is well inserted in the parallel printer port of the computer. If a printer is attached to this key, it should be on and without any error condition (paper out, etc.). Moreover, if you are using multiple security devices, make sure that our key is directly connected to the port.

- The message *"This session does not exist"* is displayed when you enter the name of the simulation session, and still you are certain that this session exists.

  It is possible that the mode (diskette or hard disk) in which the software currently operates (see section 4.1) does not correspond with the support where the session's data files are effectively stored. You can identify/modify this mode by referring to section 4.8.2.

APPENDIX B
RUNNING JET-SET/2 ON A MICRO-COMPUTER NETWORK

JET-SET/2 can be used on a micro-computer network so that each machine can be assigned to each individual (or team) taking part in the simulation. For such network use, both software and data files must absolutely be stored on hard disk (see sections 4.8.2 and 4.8.3), and those two installations must be done on one (or two) computer(s) where programs are accessible from the other computers of the network.

We must however mention that this network use is limited due to the fact that the compiler (Turbo Pascal) used to develop the software does not permit having files opened in shared mode. During the execution of a program, it may well be possible that a user gets a message (issued by the network manager) indicating a security access violation on a file : this indicates that another person is currently using the software for the same simulation session. Normally, the system offers the user three alternatives: either abort the program execution (to retry later on), or ignore the message and continue (which is a bad choice, with unpredictable results), or try again to access the file until access is permitted.

We must emphasize that, for the network use of this software, the execution of the session creation and simulation programs require that the protection key be in the parallel port of the computer from which those two programs are loaded. In other words, the key must be attached to the computer where the program will be executed (not where the program is stored).